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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,200	09/27/2001	Vijay Seetharaman	JP920000317US1	4431
7590	03/25/2009		EXAMINER	
Duke Yee Yee & Associates, PC 4100 Alpha Rd. Ste. 1100 Dallas, TX 75244			ARAQUE JR, GERARDO	
			ART UNIT	PAPER NUMBER
			3689	
			MAIL DATE	DELIVERY MODE
			03/25/2009	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VIJAY SEETHARAMAN,
SUNDARESAN VENKATARAMAN, and JOHN WILKINSON

Appeal 2009-0447
Application 09/966,200
Technology Center 3600

Decided:¹ March 25, 2009

Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and
JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Vijay Seetharaman, et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-18. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

SUMMARY OF DECISION

We REVERSE.²

THE INVENTION

The invention relates to the design and development of object oriented GUI-based client applications. The independent claims are claims 1, 11, and 14 to a “method of developing a computer software system”, a “computer software system in a computer readable medium”, and a “computer program in a computer readable medium,” respectively. All the claims claim subject matter encompassing the use of a view sub-system, a business logic sub-system, and a handler sub-system.

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A method of developing a computer software system, comprising the computer implemented steps of
 - defining a first interface associated with a proposed view sub-system and with a proposed business logic sub-system, wherein the proposed view sub-system and the proposed business logic sub-system interact only via the first interface;
 - defining a second interface associated with a proposed handler sub-system and with the proposed business logic sub-system, wherein the proposed handler sub-system and the proposed

² Our decision will make reference to the Appellants’ Appeal Brief (“App. Br.,” filed Oct. 2, 2007) and Reply Brief (“Reply Br.,” filed Feb. 13, 2008), and the Examiner’s Answer (“Answer,” mailed Dec. 13, 2007).

business logic sub-system interact only via the second interface;

wherein the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other;

creating the proposed view sub-system in accord with the first interface; and

creating the proposed handler sub-system in accord with the second interface.

THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Beckett US 6,564,368 B1 May 13, 2003

The following rejection is before us for review:

1. Claims 1-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Beckett.

ARGUMENTS

The Examiner took the position that Beckett discloses the subject matter and all its limitations of claim 1 except that Beckett “fails to explicitly state the exact arrangement of 3 sub-systems with interfaces between each sub-system.” Answer 4. As evidence that Beckett discloses all the elements of the claimed subject matter but for their arrangement, the Examiner relied on col. 1, ll. 24-30 and 44-47 and col. 3, ll. 1-12 and 44-47 to show the first and second steps of the claimed method including the first and second interfaces; col. 1, ll. 44-47 and col. 3, ll. 1-12 and 44-47 to show

“the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other”; and, col. 6, ll. 20-27 to show “creating the proposed view sub-system in accord with the first interface” and “creating the proposed handler sub-system in accord with the second interface.” Regarding the arrangement of the 3 sub-systems with the interfaces between each sub-system, the Examiner contended that “Beckett does disclose that multiple interfaces can be used to connect multiple objects and that one of ordinary skill in the art would know that there are numerous ways of connecting the sub-systems” Answer 4. The Examiner reasoned therefrom that “it would have been obvious to one having ordinary skill in the art at the time of the invention that[,] using the teachings of Beckett (specifically Col. 6 L. 20-27 & Col. 8 L. 23-27)[,] the industry is assured the rapid, high-quality construction of products.” Answer 4. (Emphasis original.)

The Appellants disagreed with the Examiner’s reading of Beckett, arguing that Beckett does not teach or suggest the first and second interfaces as associated with a proposed view sub-system and a proposed business logic system, and a proposed handler sub-system and a proposed business logic sub-system, respectively, which the respective systems interacting only with their respective first and second interfaces, as set forth in claim 1. App. Br. 11. The Appellants argue the same for the subject matter of dependent claim 2. App. Br. 13-14. The Appellants further argue that even if it is assumed arguendo, as the Examiner is alleged to be arguing, that Beckett discloses the interfaces and three subsystems (i.e., the proposed view sub-system, the proposed business logic system, and the proposed handler sub-system), the arrangement claimed is not disclosed and “no basis exists to

assume that the particular arrangement of the three sub-systems in claim 1 should be adopted solely in view of *Beckett's* disclosure.” App. Br. 15.

ISSUE OF LAW

Does Beckett disclose the first and second interfaces as associated with a proposed view sub-system and a proposed business logic system, and a proposed handler sub-system and a proposed business logic sub-system, respectively, which the respective systems interacting only with their respective first and second interfaces, as set forth in claim 1?

FINDINGS OF FACT

We find that the following enumerated findings of fact (FF) are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

Claim construction

1. The subject matter claimed includes a first and second “interface.”
2. The Specification describes a user interface as managed by a client application that “accepts and verifies data entered by the user, dispatches requests to server applications and sometimes executes business logic” as part of the client side of a client/server architecture. Specification 1:26-28.
3. According to the Specification, “[t]he design and development of a client application is a complicated task [but] using the popular Object Oriented programming paradigm this task can also be

simplified and separated into its constituent parts.” Specification 1:29-31.

4. “The essential elements of each use case or task to be managed by the client application can be divided between three types of “objects” each containing its own data and methods.” Specification 1:33-34.
5. The subject matter claimed includes a “proposed view sub-system.”
6. The Specification describes a view object as “responsible for presentation details.” Specification 1:34-35
7. The subject matter claimed includes a “proposed business logic sub-system.”
8. The Specification describes a “Business Object Implementation object is responsible for the business data and business logic aspects of the process or use case.” Specification 2:2-4.
9. The subject matter claimed includes a “proposed handler sub-system.”
10. The Specification describes a “controller or handler object is responsible for managing the execution and co-ordination aspects of the business case.” Specification 2:1-2.

The scope and content of the prior art

11. The Examiner states that col. 1, ll. 24-30 and 44-47 and col. 3, ll. 1-12 and 44-47 of Beckett discloses the first step of the claimed method (“defining a first interface ...”). Answer 3.
12. Col. 1, ll. 24-30 reads as follows:

Programs are created from instructions of a programming language that are accumulated into the program's source code. The source code controls presentation, interfaces, and logic. A programmer authors source-code and compiles it into processor machine code utilizing a compiler compatible with both the source code's language and target processor.

13. Col. 1, ll. 44-47 reads as follows:

Applications are constructed from one or more programs. Programmers write source code leveraging interfaces that disparate programs to interact with each other and provide greater utility.

14. Col. 3, ll. 1-12 reads as follows:

These connections between classes are defined within a visual environment. The relationships can be programmatically attached by name to object instances during program execution. Because these relationships are stored in a resource and are dynamically bound by name to the objects, they can be created and modified without requiring the source code of the objects being associated to be changed. This eliminates hard coded dependencies between objects that impede reuse of the objects in other contexts. This type of program requires meta-data, full dynamic binding and probing support in the objects being connected with the invention.

15. Col. 3, ll. 44-47 reads as follows:

Therefore, the present invention permits business logic, data translations, expressions, and other algorithms to be visually modeled using the interface manager and its dynamic properties as well as the Connection Editor.

16. The Examiner states that col. 1, ll. 24-30 and 44-47 and col. 3, ll. 1-12 and 44-47 of Beckett also discloses the second step of the claimed method (“defining a second interface ...) at. Answer 3.
17. The Examiner states that col. 1, ll. 44-47 and col. 3, ll. 1-12 and 44-47 of Beckett further discloses “the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other” as claimed. Answer 4.
18. The Examiner states that col. 6, ll. 20-27 of Beckett discloses “creating the proposed view sub-system in accord with the first interface” and “creating the proposed handler sub-system in accord with the second interface” as claimed. Answer 4.
19. Col. 6, ll. 20-27 reads as follows:

The Connection Editor 203 needs the ability to interact with the numerous disparate components without having detailed knowledge of each component. Furthermore, each component must be able to interact with any other component in order to carry out connections, a topic that will be described in detail below. This is accomplished by requiring that each component implement a standard interface mechanism.

- Any differences between the claimed subject matter and the prior art*
20. The difference between the claimed subject matter and Beckett is that the claimed subject matter defines the first and second interfaces as associated with a proposed view sub-system and a proposed business logic system, and a proposed handler sub-system and a proposed business logic sub-system, respectively, which respective systems interact only with their respective first and second interfaces.

The level of skill in the art

21. Neither the Examiner nor the Appellants have addressed the level of ordinary skill in the pertinent art of developing a computer software system. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown’”) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown’”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

Secondary considerations

22. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Obviousness

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of

underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 17-18.

ANALYSIS

The passages in Beckett that the Examiner relied upon in support of the position that Beckett discloses the interfaces, the view sub-system, the business logic system, and the handler sub-system, as claimed, have been reviewed. The relied-upon passages broadly describe the construction of computer programs from instructions of a programming language in terms of source code. Beckett discloses that “[t]he source code controls presentation, interfaces, and logic.” FF 12. Beckett further discloses an ability to make connections between disparate components. FF 19.

There is however no disclosure of “defining a first interface associated with a proposed view sub-system and with a proposed business logic sub-system, wherein the proposed view sub-system and the proposed business logic sub-system interact only via the first interface” and “defining a second interface associated with a proposed handler sub-system and with the proposed business logic sub-system, wherein the proposed handler sub-system and the proposed business logic sub-system interact only via the

second interface” as required by the method of claim1. Furthermore, there is no disclosure that “the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other” as claimed.

We do not find that the broad information that Beckett discloses about programming with source code to be sufficient to lead one of ordinary skill in the art to “defin[e] a first interface associated with a proposed view sub-system and with a proposed business logic sub-system, wherein the proposed view sub-system and the proposed business logic sub-system interact only via the first interface” and “defin[e] a second interface associated with a proposed handler sub-system and with the proposed business logic sub-system, wherein the proposed handler sub-system and the proposed business logic sub-system interact only via the second interface,” where “the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other,” as specifically claimed. The broad information that Beckett discloses about programming with source code would lead one of ordinary skill in the art to a myriad of possible programs. The question is whether one of ordinary skill in the art would have been led to the program set forth in the claim. In that regard, in rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *see also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). Part of that case is to explain why one of ordinary skill in the art would lead to the particular combination of objects set forth in the claim given only the disclosure of programming with source code. “[R]ejections on obviousness grounds cannot be sustained by mere

conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR.*, 127 S. Ct. at 1741 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). We do not find the Examiner has provided any articulated reasoning with some rational underpinning to support the obviousness of developing a first and second interface and view, business logic and handler sub-systems and arrange them as described in the claim given only Beckett’s disclosure of programming with source code.

The Examiner’s position with respect to the subject matter of claim 1 is essentially the same as that taken with respect to the subject matter of claims 11 and 14, which claims also include the aforementioned objects. Accordingly we reach the same conclusion as to the rejection of these claims.

For the same reasons, we will not sustain the rejection of the dependent claims over Beckett. Cf. *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“[D]ependent claims are nonobvious if the independent claims from which they depend are nonobvious.”).

CONCLUSIONS OF LAW

We conclude that the Appellants have shown that the Examiner erred in rejecting claims 1-18 under 35 U.S.C. §103(a) as being unpatentable over Beckett.

DECISION

The decision of the Examiner to reject claims 1-18 is reversed.

REVERSED

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Application 09/966,200

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